

REMARKS

This is in full and timely response to the Office Action dated December 12, 2005.

Because March 12, 2006, three months after the mailing date of the Office Action, falls on a Sunday, the period for response is extended to March 13, 2006, which is the next day that is neither a Saturday, Sunday nor a Federal holiday in the District of Columbia.

Reexamination in light of the following remarks is respectfully requested.

Claims 1-4 and 6 are currently pending in this application, with claims 1 and 4 being independent.

No new matter has been added.

Rejections under 35 U.S.C. §103

Paragraph 2 of the Office Action indicates that claims 1-3 have been rejected under 35 U.S.C. §103 as allegedly being unpatentable over either one of Japanese Application Publication No. 03-193510 to Kajiwara or Japanese Application Publication No. 11-170824 to Numata in view of U.S. Patent No. 4,034,792 to Martin, U.S. Patent No. 4,343,342 to McDonald, U.S. Patent No. 6,418,993 to Sakamoto et al. (Sakamoto), and U.S. Patent No. 6,536,368 to Hendrie.

Paragraph 3 of the Office Action indicates that claims 4-6 have been rejected under 35 U.S.C. §103 as allegedly being unpatentable over Kajiwara, Numata, Martin, McDonald, Sakamoto, and Hendrie, and in further view of Japanese Application Publication No. 02-106330 to Yamada et al. (Yamada).

At least for the following reasons, if the allowance of the claims is not forthcoming at the very least and a new ground of rejection made, then a **new non-final Office Action** is respectfully requested.

These rejections are traversed at least for the following reasons.

Claim 1- Claims 2-3 are dependent upon claim 1. Claim 1 is drawn to a pneumatic tire, comprising:

a carcass layer arranged between a pair of left and right bead portions; and

an inner liner layer provided on an inner side of the carcass layer,

wherein volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Kajiwara - Kajiwara arguably teaches the presence of a reinforcement layer 9 (Kajiwara at Figures 1, and 2).

However, the Office Action admits that Kajiwara fails to disclose, teach or suggest the reinforcement layer 9 being intermittently arranged (Office Action at page 2).

Thus, Kajiwara fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Numata - Numata arguably teaches the presence of a reinforcement layer 21 (Kajiwara at Figures 1, 2, and 5).

However, the Office Action admits that Numata fails to disclose, teach or suggest the reinforcement layer 21 being intermittently arranged (Office Action at page 2).

Thus, Numata fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire

circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Martin - Martin arguably teaches a pneumatic tire having beads 11, a rib 12, and a carcass 13 (Martin at Figures 1-6).

However, Martin fails to disclose, teach or suggest the rib 12 as being between the carcass 13 and an inner layer in the bead 11.

Thus, Martin fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

McDonald - McDonald arguably teaches a pair of predetermined angularly-spaced substantially radial projections 34 bridging annular band 36 and connecting projections 30 and 32 (McDonald at Figure 1).

However, McDonald fails to disclose, teach or suggest any of the projections 30, 32 and 34 as being between the carcass layer and the inner layer.

Although McDonald arguably teaches pluralities of modules 52 or 54 (McDonald at Figures 8 and 9), McDonald fails to disclose, teach or suggest any of the modules 52 or 54 as being between the carcass layer and the inner layer.

Thus, McDonald fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Sakamoto - Sakamoto arguably teaches the presence of a wheelrim protector 9 (Sakamoto at Figures).

However, Sakamoto fails to disclose, teach or suggest the wheelrim protector 9 as being intermittently arranged.

In addition, Sakamoto fails to disclose, teach or suggest the wheelrim protector 9 as being between the carcass layer and the inner layer.

Thus, Sakamoto fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Hendrie - Hendrie arguably teaches the presence of grooves 30, 32 (Hendrie at Figure 11).

However, Sakamoto fails to disclose, teach or suggest the grooves 30, 32 as being between the carcass layer and the inner layer.

Thus, Sakamoto fails to disclose, teach or suggest that volume adjusting members are intermittently arranged between the carcass layer and the inner layer in the bead portions in a tire circumferential direction so as to change a sectional shape of a closed space formed between the tire and a wheel in the tire circumferential direction.

Motivation - The Office Action contends that it is emphasized that the concept of forming tire layers in a discontinuous manner is extremely well known and conventional in the tire industry and as such, one of ordinary skill in the art at the time the invention was made would have found it obvious to incorporate such a design in either Kajiwara or Numata depending on the desired distribution of reinforcement (Office Action at pages 2-3).

In response to this contention, the fact that references can be combined or modified is not sufficient to establish *prima facie* obviousness. M.P.E.P. §2143.01(III). Moreover, the fact that the claimed invention is within the capabilities of one of ordinary skill in the art is not sufficient by itself to establish *prima facie* obviousness. M.P.E.P. §2143.01(IV).

But the assertions made within the Office Action fail to provide objective evidence sufficient to show that the skilled artisan would have been motivated to rely upon the teachings of Martin, McDonald, Sakamoto, or Hendrie to modify either the reinforcement layer 9 of Kajiware or the reinforcement layer 21 Numata. The lack of objective evidence especially apparent when taking into consideration that a structure that is substantially similar to either the reinforcement layer 9 of Kajiware or the reinforcement layer 21 Numata is absent from within Martin, McDonald, Sakamoto, and Hendrie. M.P.E.P. §2144.06.

Unexpected results - The Office Action contends that no showing of unexpected results has been provided (Office Action at page 3).

In response to this contention, paragraphs [0024]-[0035] provide a showing of unexpected results.

Moreover, page 8, line 10 and page 11, line 9, of the specification as originally filed provides that there are unexpected result pointed out that the air column resonance sound is remarkably suppressed without a sacrifice to the tire uniformity and durability.

Generally - Tire constituting members have their respective assigned roles, and the details of their arrangements in a tire differ dependent upon or according to their roles.

In greater detail, such as the reinforcing layer 9 of Kajiware and the reinforcing layer 21 of Numata are members aiming at a reinforcement, and if there are arranged intermittently, it tends to result in that their reinforcing effects or results are impaired.

Then, the rib 12 of Martin is for locking rim in a low pressure condition, so that even if it is arranged intermittently, its prescribed function can be exhibited.

The projections 34 of McDonald are members relating to a display, so that even if they are arranged intermittently, they can demonstrate their prescribed function.

The rim protector 9 of Sakamoto is for protecting the rim, so that even if it arranged intermittently, it can exhibit its prescribed function.

The grooves 30 and 32 of Hendrie are members relating to a display, and if they are intermittently arranged, they can exhibit their prescribed functions.

Therefore, only with the fact that tire constituting members are intermittently arranged in Martin, McDonald, Sakamoto and Hendrie, it is not possibly motivated that the reinforcing layer 9 in or of Kajiwara and the reinforcing layer 21 in or of Numata may be arranged intermittently.

Claim 4 - Claim 6 is dependent upon claim 4. Claim 4 is drawn to a method for manufacturing a pneumatic tire, comprising the steps of:

intermittently crimping volume adjusting members on both side sections of a sheet inner liner material in a longitudinal direction thereof beforehand;

winding the inner liner material on an outer peripheral side of a forming drum;

winding a sheet carcass material on an outer peripheral side of the inner liner material;

forming an unvulcanized tire containing the inner liner material and the carcass material; and

vulcanizing the unvulcanized tire,

wherein the volume adjusting members are intermittently arranged in a tire circumferential direction between the inner liner material and the carcass material.

The rejection of claims 4-6 is traversed at least for the reasons provided hereinabove with respect to claim 1, and for the following reasons.

Yamada - Yamada arguably teaches a rubber sheet 11 (Yamada at Figures 2-4).

However, Yamada fails to disclose, teach or suggest the rubber sheet 11 as being intermittently crimped.

Thus, Yamada fails to disclose, teach or suggest intermittently crimping volume adjusting members on both side sections of a sheet inner liner material in a longitudinal direction thereof beforehand.

Withdrawal of this rejection and allowance of the claims is respectfully requested.

Conclusion

For the foregoing reasons, all the claims now pending in the present application are allowable, and the present application is in condition for allowance. Accordingly, favorable reexamination and reconsideration of the application in light of the amendments and remarks is courteously solicited.

If the Examiner has any comments or suggestions that could place this application in even better form, the Examiner is requested to telephone Brian K. Dutton, Reg. No. 47,255, at 202-955-8753.

If any fee is required or any overpayment made, the Commissioner is hereby authorized to charge the fee or credit the overpayment to Deposit Account # 18-0013.

Dated: March 13, 2006

Respectfully submitted,

By  

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